PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
Thompson et al.

Serial No: 09/738,294

Filed: December 18, 2000

Group Art Unit: 2174

Examiner: CHUONG, Truc T.

For: Method And System For Initiating Communications With Dispersed Team Members From Within A Virtual Team Environment Using Personal Identifiers

Assistant Commissioner for Patents
Alexandria, VA 22313-1450

MAIL STOP APPEAL BRIEF -PATENTS

Sir:

APPELLANT'S BRIEF UNDER 37 C.F.R. § 1.192

Pursuant to 37 C.F.R. § 1.191, the Applicant submitted a Notice of Appeal from the Examiner to the Board of Patent Appeals and Interferences on May 26, 2004. Specifically, the Applicant takes appeal from the Examiner's rejection of claims 1-23 under 35 U.S.C. § 103(a). The Notice of Appeal was filed in response to the Examiner's Final Action (paper No. 9) mailed March 29, 2004. Pursuant to 37 C.F.R. § 1.192, the Applicant now submits the following brief.

1) **Real Party in Interest**

The real party of interest is Nortel Networks Limited, by virtue of an assignment executed by the inventors in favour of Nortel Networks Limited recorded at Reel/Frame 011384/0120.

2) **Related Appeals and Interferences**

None.

3) **Status of claims**

Pursuant to the Final Action (paper No. 9) mailed March 29, 2004, the status of the claims is as follows:

(a) claims 1-22 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5,793,365 (Tang et al.) in view of United States Patent No. 5,995,492 (Klein et al.);

(b) claim 23 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5,793,365 (Tang et al.) in view of United States Patent No. 5,995,492 (Klein et al.) as applied to claim 1, and further in view of United States Patent No. 5,437,009 (Lane).

4) **Status of Amendments**

No amendments were submitted in the Applicant's response filed April 5, 2004, to the Final Office Action (paper No. 9) mailed March 29, 2004. Accordingly, the claims remain as amended in the Applicant's response filed on January 7, 2004. A copy of the current claims is provided in the Appendix below.

5) **Summary of Invention**

The present invention is generally directed to methods and systems for facilitating collaboration among geographically-dispersed team members using a distributed application that provides the virtual team environment. More particularly, the present invention is directed to a method of initiating communications using a persistent virtual team environment instantiated by a collaboration services suite for facilitating collaboration between members of a team. In accordance with the present invention, dynamically maintained presence and availability information respecting each member of the team for communications over at least a Switched Telephone Network (STN) is obtained. A graphical interface is provided to enable a

person to interact with the virtual team environment to select each one of: a personal identifier associated with a respective team member; and one of the plurality of different types of communications is provided. Finally, a new communications session is initiated using the selected personal identifier and type of the communications.

Thus the present invention provides the team member with an enhanced awareness of activities within the team. For example, a team member is made aware that a communication session is currently under way; who is currently participating in the communication session; and that the session is public, and can therefore be joined. The team member can use this information to decide whether to initiate a new communications session with a team mate or to join an already active communications session involving that team-mate. This functionality is provided across a wide variety of communications types, including communications sessions that engage resources of a conventional switched telephone network (STN), such as a conventional two-way telephone call through the Public Switched Telephone Network (PSTN).

6) **Issues**

The following issues presented for review by the Board of Patent Appeals and Interferences are as follows:

(a) Whether the Examiner has properly established *prima facie* obviousness of claims 1-22 based on the combination of Tang et al. and Klein et al.; and

(b) Whether the Examiner has properly established *prima facie* obviousness of claim 23 based on the combination of Tang et al. and Klein et al. and Lane.

7) **Grouping of Claims**

Claims 1-23 are pending in the present application. Of these, claim 1 is the sole independent claim. The issues presented for review can be decided with reference to claims 1 and 23.

8) **Argument**

In order to facilitate review by the Board, the Applicant's arguments are presented in the following order:

- The Examiner's rejection of claims 1-22 under 35 U.S.C. § 103(a)
- The Examiner's rejection of claim 23 under 35 U.S.C. § 103(a)
- Brief description of the cited references
- Has the Examiner established *prima facie* obviousness in respect of claims 1-22
- Has the Examiner established *prima facie* obviousness in respect of claim 23

Arguments pertaining to each of these points are presented below under equivalent sub-headings.

(i) The Examiner's rejection of claims 1-22 under 35 U.S.C. § 103(a)

In the Final Office Action (Paper No. 9) mailed on March 29, 2004, the Examiner asserted (at paragraph 4 of the Examiner's detailed action) that:

> ... although Tang mentions using telephones in his invention (col 6, lines 47-50), Tang does not clearly show in details how each member of the team communicates over at least a Switched Telephone Network. Klien clearly shows a virtual switching point in a public switched telephone (col. 17 lines 64-67, col. 18 lines 1-28 and FIG. 1) to switch from one telephone to a different telephone. It would be obvious ... that a person with ordinary skill in the art would want to have Klein's virtual switching feature in Tang's communication devices in order to have an ultimate implementation when user can manually control virtual switches.

(ii) The Examiner's rejection of claim 23 under 35 U.S.C. § 103(a)

In the Final Office Action (Paper No. 9) mailed on March 29, 2004, the Examiner asserted (at paragraph 5 of the Examiner's detailed action) that:

> ... Tang and Klien do not show a steps of monitoring Common Channel System (CCS) signalling of the STN. Lane clearly provides this features (CCS, col 1, lines 13-50). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to have Lane's CCS network in Tang's communication devices in view of Klien's virtual switching feature devices in order to increase the efficiency of the analysis by providing logical shrinking of the data through any network-wide communication.

(iii) Brief description of the cited references

United States Patent No. 5,793,365 (Tang et al.) teaches a system and methods which:

> "provides each networked computer user with a user interface displaying visual representations of selected other computer users, generally of those workers in the user's workgroup, and further provides communication mechanisms enabling the user to contact any of the displayed workers. The visual representations of the other users are frequently updated to indicate the activity level of these users. These activity level cues help users predict if the other users are likely to be available for an interaction. The user interface also includes a display portion and mechanism for storing data files and the like so that all workgroup members may accumulate a set of data files commonly used by the workgroup, and may transfer files in this manner to other workgroup members. The data files may be stored in association with specific interactive discussion windows, known as chat rooms, or directly in the user interface." (Abstract)

Thus Tang et al. provides a user interface which displays presence, availability and activity information for each member of a user's workgroup. The activity information relates to whether or not a workgroup member is currently using their PC, and thus can encompass participation in communications sessions that are mediated by their PC. Thus, for example:

> The level of activity of a worker may be characterized into a number of classes. In one embodiment of the present invention, there are at least five classes of activity:
>
> 1) attentive: the worker as actively working at their computer, and is not engaged in any interaction with other workers. Thus, the worker is immediately available for interaction with other workers.
>
> 2) idle: the worker is not actively working at their computer, and is not engaged in any interaction with other workers. The worker may not be in their office, and thus, may not be immediately available for interaction.
>
> 3) engaged: the worker is currently engaged in a computer mediated interaction with other workers. (e.g., desktop video conference, chat)
>
> 4) do not disturb: the worker has specifically indicated to others that they do not want to be disturbed at the current time. This activity level is preferably established by the worker.
>
> 5) absent: the worker is not currently in their office. This activity level may be established by the worker or determined automatically.
>
> (Col.5 line 55-col 6 line 10)

However, Tang et al do not teach or suggest that the presence, availability and activity information displayed by the user interface include information pertaining to types of communication that are not mediated by their PC. In particular, Tang et al do not teach or suggest any means for obtaining presence, availability and activity information respecting a workgroup member's engagement (or availability for engagement) in communications through a Switched Telephone Network such as the Public Switched Telephone Network (PSTN). In fact, in the Description of the Background Art, Tang et al criticizes prior art attempts to improve workgroup interaction as providing "no more a sense of awareness than does a telephone, since the worker still has to call the other person, who may or may not be available."

(See col 2, lines 26-37). Tang et al's solution is to provide a PC network capable of mediating a plurality of different types of communication. Tang et al do not even attempt to solve the problem of providing meaningful presence and availability information for "regular" telephone communications.

United States Patent No. 5,995,492 (Klein et al.) teaches a "digital communication system, which may be a Time Domain Multiple Access system, which uses plural antenna to reduce problems associated with fading, interference and multipath in signals received from mobile, wireless units. The protocol used between the fixed station and the mobile, wireless units provides an opportunity for the fixed station to evaluate the signal received from the wireless unit and to transmit to the wireless unit using the antenna judged to have the best received signal." (Abstract)

Thus Klien et al are primarily directed to solving the problem of poor wireless communications in severe multipath environments (such as within a building). Klien et al's solution is to provide a digital communications network with multiple fixed "base stations", each of which includes an antenna coupled to evaluation and selection means. Each base station is coupled to a conventional switch of the telephone network through a Base Station Interface Unit (BSIU). With this arrangement, the base station judged to have the best reception from any particular portable telephone is selected to transmit signals to that telephone. At col 17, line 64 - col. 18, line 28, Klien et al describe an embodiment in which a "portable telephone [22] includes a display which can be programmed from the switch [10] (through the base station) to customize features for the various telephones within a system." (Col 18, lines 64-67). As is clearly described at col. 18 lines 1-28, this capability can be used to customize the display on each mobile telephone.

Klein et al are completely silent with respect to obtaining presence and availability information respecting users of the communication system. Furthermore, applicant can find nothing in the teaching of Klien et al that relates to either "virtual switching points" or switching "from one telephone to a different telephone", as suggested by the Examiner.

United States Patent No. 5,437,009 (Lane) teaches a method and system for "graphically displaying status information from alarm message generated during outages of a network such as a Common Channel Signalling (CCS) Network" (Abstract) Lane is entirely devoted to providing improved network management information, particularly in the event of a network failure. Lane is completely silent with respect to CCS signalling related to users of the communications network. More particularly, Lane is completely silent with respect to obtaining presence and availability information respecting users of the communication network.

(iv) Has the Examiner established *prima facie* obviousness of claims 1-22

Applicant respectfully submits that the Examiner has not established *prima facie* obviousness of claim 1, and, by extension, dependent claims 2-22. MPEP. § 703.02(j) sets out three criteria that must be met by the Examiner in order to establish a *prima facie* case of obviousness.

> "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings."
>
> "Second, there must be a reasonable expectation of success."
>
> "Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

It is submitted that that the Examiner has not met these criteria, and thus has not established *prima facie* obviousness of claim 1 (and, by extension, dependent claims 2-22).

With reference to the first criterion, there is no suggestion or motivation, in either Tang et al or Klien et al themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the Tang et al reference using the teaching of Klien et al or to otherwise combine the teachings of Tang et al and Klien et al in the manner suggested by the Examiner.

After extensive reviews of both references, Applicant has been able to discover exactly one point of concordance between the Tang et al and Klien et al references; namely, they both relate to digital communications. However, within the context of digital communications Tang et al and Klien et al are directed to radically different problems, and propose entirely different solutions. As noted above, Tang et al provide a user interface which displays presence, availability and activity information for other PC-based members of the workgroup, and which enables a user to initiate PC-mediated communications with another such PC-based workgroup member. Klien et al teach a digital communication system in which portable telephones include programmable displays. There does not appear to be any reason for these systems to interact, there is no apparent benefit to be obtained by such combination, and neither reference provides any motivation for doing so.

With respect to the third criterion, it is submitted that the cited references, taken alone or in combination, do not teach or suggest all of the limitations of claim 1. In particular, adding the system of Klien et al to that of Tang et al results in a digital (IP) network-based system for PC-based team collaboration as per Tang et al, in which users' portable telephones have programmable displays as per Klien et al. None of this reads onto the claimed feature of "obtaining dynamically maintained presence and availability information respecting each member of the team for communications over at least a Switched Telephone Network" as required by claim 1.

Finally, it is well established that:

> "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

It is submitted that the Examiner has not even attempted to meet this requirement. In particular, while the Examiner has asserted that it would be obvious to combine Tang et al and

Klien et al, the Examiner has not attempted to show any relationship between his purported combination and the present invention. As mentioned above, the Examiner has asserted that his combination would provide " ... an ultimate implementation when user can manually control virtual switches". However, this object is utterly irrelevant to the present invention. As discussed above, the present invention provides a method for initiating communications ... between members of a team, which includes a step of " obtaining dynamically maintained presence and availability information respecting each member of the team for communications over at least a Switched Telephone Network (STN)". The present invention is not concerned with "virtual switches" in portable telephones, and does not attempt to provide users with manual control of such switches. Thus the Examiner has not attempted to present any line of reasoning (convincing or otherwise) as to how the present invention, as defined in claim 1 is rendered obvious by his combination of references.

In light of the foregoing, it is submitted that the Examiner has failed to establish *prima facie* obviousness of claims 1-22 in light of the combination of Tang et al and Klien et al.

(v) Has the Examiner established *prima facie* obviousness of claim 23

As detailed above, Applicant submits that the Examiner has failed to establish obviousness in respect of claim 1, which is therefore believed to be patentable. Claim 23 is dependent from claim 1, and thus is believed to be patentable for at least this reason. However, even if applicant's arguments above in respect of claim 1 are unsuccessful, Applicant respectfully submits that the Examiner has not established *prima facie* obviousness of claim 23 for the following reasons.

Claim 23 is a method claim that depends from claim 1, and adds a limitation that the step of obtaining presence and availability information comprises steps of monitoring Common Channel System (CCS) signalling, and deriving the presence and availability information from the monitored CCS signalling.

As detailed above, the Examiner's rejection of claim 23 is based on his assertion that "Tang and Klien do not show a steps of monitoring Common Channel System (CCS) signalling of the STN. Lane clearly provides this features... "

It is self-evident that there is no suggestion or motivation, in any of Tang et al or Klien et al or Lane themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the Tang et al reference using the teachings of Klien et al and Lane or to otherwise combine the teachings of Tang et al, Klien et al and Lane in the manner suggested by the Examiner. As noted above, Tang et al provide a user interface which displays presence, availability and activity information for other PC-based members of the workgroup, and which enables a user to initiate PC-mediated communications with another such PC-based workgroup member. Klien et al teach a digital communication system in which portable telephones include programmable displays. Lane provides improved methods of displaying network management information in the event of network failures. There does not appear to be any reason for these systems to interact, there is no apparent benefit to be obtained by such combination, and none of these references provide any motivation for doing so.

Furthermore, it is submitted that the cited references, taken alone or in combination, do not teach or suggest all of the limitations of claim 23. In particular, adding the systems of Klien et al and Lane to that of Tang et al results in a digital (IP) network-based system for PC-based team collaboration as per Tang et al, in which users' portable telephones have programmable displays as per Klien et al., and a user's PC displays CCS network status information as per Lane. None of this reads onto the claimed feature of monitoring CCS signalling, and deriving presence and availability information (of a team member) from the monitored CCS signalling.

Finally, the Examiner has made no attempt "to present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) As mentioned above, the Examiner has asserted that his combination would " ... increase the efficiency of the analysis by providing logical shrinking of the data through any network-wide

communication". However, this object is utterly irrelevant to the present invention. As discussed above, the present invention provides a method for initiating communications ... between members of a team, which includes a step of "obtaining dynamically maintained presence and availability information respecting each member of the team for communications over at least a Switched Telephone Network (STN)". This step of obtaining presence and availability information further comprises the steps of monitoring CCS signalling, and deriving presence and availability information (of a team member) from the monitored CCS signalling. The present invention is not concerned with network-wide communications, and does not attempt to logically shrink data within such communications. Thus the Examiner has not attempted to present any line of reasoning (convincing or otherwise) as to how the present invention, as defined in claim 23 is rendered obvious by his combination of references.

In light of the foregoing, it is submitted that the Examiner has failed to establish *prima facie* obviousness of claim 23 in light of the combination of Tang et al, Klien et al. and Lane.

9) **Appendix**

Claims involved in the Appeal

1. (Previously Amended) A method of initiating communications using a persistent virtual team environment instantiated by a collaboration services suite for facilitating collaboration between members of a team, the method comprising steps of:

obtaining dynamically maintained presence and availability information respecting each member of the team for communications over at least a Switched Telephone Network (STN);

providing a graphical interface adapted to enable a person to interact with the virtual team environment to select each one of: a personal identifier associated with a respective team member; and one of the plurality of different types of communications; and

initiating a new communications session using the selected personal identifier and type of the communications.

2. (Original) A method as claimed in claim 1, wherein the types of communications comprise: 1-way messaging; 2-way messaging; voice; and multi-media.

3. (Original) A method as claimed in claim 2, wherein 1-way messaging comprises one or more of paging, and e-mail.

4. (Original) A method as claimed in claim 2, wherein 2-way messaging comprises instant messaging (IM).

5. (Original) A method as claimed in claim 2, wherein multi-media communications comprises one or more of: document sharing; application sharing; 1-way video conferencing; and 2-way video conferencing.

6. (Original) A method as claimed in claim 1, wherein the graphical interface comprises at least one communications type icon representative of a respective type of communications.

7. (Previously Amended) A method as claimed in claim 6, wherein each communications type icon is associated with the personal identifier of the respective team member, and representative of a respective type of communications in which the team member is available to participate.

8. (Original) A method as claimed in claim 7, wherein the graphical interface is adapted to enable simultaneous selection of both the personal identifier and the type of communications by selecting one of the at least one communications type icons associated with the personal identifier.

9. (Original) A method as claimed in claim 1, wherein the graphical interface comprises a menu for listing each one of the plurality of different types of communications, the graphical interface being adapted to enable selection of one of the plurality of different types of communications from the menu.

10. (Original) A method as claimed in claim 1, further comprising a step of opening a communications initiation window in response to selection of either one or both of the personal identifier and the type of communications.

11. (Original) A method as claimed in claim 10, wherein the communications initiation window is adapted to permit the person to enter a description of a topic associated with the communications.

12. (Original) A method as claimed in claim 10, wherein the communications initiation window is adapted to enable the person to send a communications initiation request to the collaboration services suite.

13. (Original) A method as claimed in claim 12 wherein the communications initiation request includes the personal identifier of the team member to be invited to join the

communication, and information concerning the selected type of communications to be initiated.

14. (Previously Amended) A method as claimed in claim 1, wherein the step of initiating the new communications session comprises the steps of:

using the personal identifier to send an invitation to the respective team member inviting the team member to join the communications session;

receiving an invitation response from the respective team member, the invitation response representing whether or not the respective team member accepts the invitation; and

if the respective team member accepts the invitation, establishing the communications session with the team member, using the personal identifier and the selected communications type.

15. (Original) A method as claimed in claim 14, wherein the step of sending an invitation comprises the steps of:

using the personal identifier to select a respective team member profile associated with the team member, the team member profile comprising communications preference information defining preferences of the team member for participating in communications s with other members of the team using at least one of a plurality of different communications devices;

selecting a communications device associated with the team member for receiving the invitation; and

forwarding the invitation to the team member using the selected communications device.

16. (Original) A method as claimed in claim 15, wherein the step of selecting a communications device comprises a step of searching the team member profile for communications information concerning a preferred text communications device.

17. (Original) A method as claimed in claim 16, further comprising, when communications information concerning a preferred text communications device is located, a step of selecting the preferred text communications device as the selected communications device for receiving the invitation.

18. (Original) A method as claimed in claim 17, wherein the step of forwarding the invitation to the team member comprises the steps of:

formulating a text-based invitation message suitable for display by the selected communications device; and

sending the text-based invitation message to the selected communications device.

19. (Original) A method as claimed in claim 16, further comprising, when communications information concerning a preferred text communications device is not located, the steps of:

searching the team member profile for communications information concerning a preferred voice communications device; and

if information concerning the preferred voice communications device is located, selecting the preferred voice communications device as the selected communications device for receiving the invitation.

20. (Original) A method as claimed in claim 19, wherein the step of forwarding the invitation to the team member comprises the steps of:

forwarding session information concerning the invitation to an interactive voice response (IVR) interface of the collaboration service suite;

establishing a voice communications between the IVR interface and the team member using the selected communications device; and

announcing information concerning the invitation to the team member using the IVR interface.

21. (Previously Amended) A method as claimed in claim 14, wherein the step of establishing the new communications session comprises the steps of:

using the personal identifier to select a team member profile associated with the team member, the team member profile comprising communications preference information defining preferences of the team member for participating in communications s with other members of the team using at least one of a plurality of different communications devices;

selecting a preferred communications device associated with the team member using the selected communications type; and

establishing the communications between the person and the team member using the selected preferred communications device.

22. (Previously Added) A method as claimed in claim 1, wherein the step of obtaining dynamically maintained presence and availability information comprises obtaining dynamically maintained presence and availability information for each member of the team for communications over a Switched Telephone Network (STN) and a packet network.

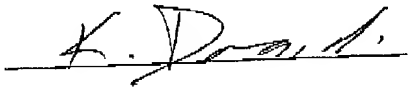
23. (Previously Added) A method as claimed in claim 1, wherein the step of obtaining dynamically maintained presence and availability information comprises steps of:

monitoring Common Channel System (CCS) Signaling of the STN; and

deriving the presence and availability information from the monitored CCS signaling.

If any extension of time under 37 C.F.R. § 1,136 is required to obtain entry of this brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,



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